



NUCLEAR REGULATORY COMMISSION

[Docket No. 70-1151; NRC-2022-0047]

Westinghouse Electric Company, LLC; Columbia Fuel Fabrication Facility; and US Ecology, Inc.; Idaho Resource Conservation and Recovery Act Subtitle C Hazardous Disposal Facility Located Near Grand View, Idaho

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) related to a request for alternate disposal, exemptions, and associated license amendment for the disposition of waste containing byproduct material and special nuclear material (SNM) from the Westinghouse Electric Company, LLC's (WEC) Columbia Fuel Fabrication Facility (CFFF) in Hopkins, South Carolina, under License Number SNM-1107. The material would be transported to and disposed of at the US Ecology, Inc. (USEI) disposal facility located near Grand View, Idaho, a Subtitle C Resource Conservation and Recovery Act (RCRA) hazardous waste disposal facility permitted by the State of Idaho to receive low-level radioactive waste. The NRC is also considering the related action of approving corresponding exemptions to USEI, allowing them to accept and dispose the material on their site. Approval of the alternate disposal request from WEC, the exemptions requested by WEC and USEI, and a conforming license amendment to WEC would allow WEC to transfer specific waste from CFFF for disposal at USEI.

DATES: The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID **NRC-2022-0047** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2022-0047**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the “Availability of Documents” section.

- **NRC’s PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC’s PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Jenny Tobin, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2328, email: Jennifer.Tobin@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

By letter dated November 5, 2021, as corrected by letter dated December 1, 2021, WEC requested exemptions and an associated license amendment to License Number SNM-1107, issued for the operation of the CFFF located in Hopkins, South Carolina pursuant to section 20.2002 of title 10 of the *Code of Federal*

Regulations (10 CFR), “Method for obtaining approval of proposed disposal procedures.”

By letter dated November 5, 2021, USEI incorporated the supplemented WEC application in its request for corresponding exemptions. The requests are for NRC authorization for an alternate disposal of NRC-licensed byproduct and SNM from the CFFF. As required by 10 CFR 51.21, the NRC conducted an EA. Based on the results of the EA that follows, the NRC has determined that pursuant to 10 CFR 51.31, preparation of an environmental impact statement for the exemption request is not required and, pursuant to 10 CFR 51.32, issuance of a FONSI is appropriate.

WEC submitted a 10 CFR 20.2002 alternate disposal request (ADR) on May 8, 2020 with a corresponding exemption request from USEI on May 11, 2020. The NRC staff reviewed and approved the request on December 9, 2020, along with the corresponding exemptions for USEI. Following approval, WEC determined that the volume of material considered was incorrect. To resolve the issue WEC submitted a second request, dated February 8, 2021. The NRC staff reviewed and approved the second request and issued an updated safety evaluation report (SER) evaluating both requests as well as a new exemption to USEI on March 11, 2021. On June 1, 2021, WEC submitted another ADR for the disposal of additional material from CFFF. On September 14, 2021, in a response to an NRC staff request for additional information (RAI), WEC supplemented and narrowed its June 1, 2021, request to consider only the disposal of calcium fluoride (CaF_2) sludge containing byproduct material and SNM. WEC stated that the other waste material types discussed in the June 1, 2021, request would be addressed in the response to the NRC staff’s RAI. The NRC staff approved the request to dispose of CaF_2 sludge at USEI on October 12, 2021.

This ADR seeks approval to dispose of volumetrically contaminated and surface-contaminated wastes using bounding dose calculations and corresponding volume and radionuclide concentration limits that are based upon the annual USEI worker exposure limit of 5 millirem per year (mrem/yr).

II. Environmental Assessment

Description of the Proposed Action

WEC and USEI requested NRC approval for a 10 CFR 20.2002 ADR, exemptions to 10 CFR part 70.3 and 10 CFR 30.3, and a conforming WEC license amendment to allow WEC to package, ship, and dispose of specific volumetrically contaminated and surface-contaminated waste at the USEI disposal facility. The volumetrically contaminated waste includes CaF_2 sludge dredged from the disposal lagoons and the Sanitary Lagoon located on the site, contaminated soil from under and adjacent to the Sanitary Lagoon, and soil associated with the demolition of the CaF_2 storage pad. The surface-contaminated waste being considered for disposal includes obsolete uranium hexafluoride (UF_6) shipping cylinders and debris associated with demolition and removal of the CaF_2 pad and Sanitary Lagoon. The waste being considered originates from processes associated with the chemical conversion of UF_6 to uranium dioxide (UO_2) performed at CFFF and are contaminated with isotopic uranium (U-234, U-235, and U-238) and technetium-99 (Tc-99).

As proposed, this waste would be transported from CFFF in Hopkins, South Carolina, to the USEI facility near Grand View, Idaho. The USEI facility is a RCRA Subtitle C hazardous waste disposal facility permitted by the State of Idaho. The USEI site has both natural and engineered features that limit the transport of radioactive material. The natural features include a low precipitation rate [i.e., 18.4 cm/year (7.4 in./year)] and a long vertical distance to groundwater (i.e., 61-meter (203-ft) thick on average unsaturated zone below the disposal zone). The engineered features include an engineered cover, liners, and leachate monitoring systems. Because the USEI facility is not licensed by the NRC, this proposed action requires the NRC to exempt USEI from the Atomic Energy Act of 1954, and NRC licensing requirements with respect to USEI's requested receipt and disposal of this material.

Need for the Proposed Action

The need for the proposed action is to authorize a safe and appropriate method for disposing of the volumetrically contaminated and surface-contaminated waste as part

of remediation activities currently being performed at the CFFF in accordance with Consent Agreement 19-02-HW between WEC and the South Carolina Department of Health and Environmental Control. The proposed action would also conserve low-level radioactive waste disposal capacity at licensed low-level radioactive disposal sites while ensuring that the material being considered is disposed of safely in a regulated facility.

Environmental Impacts of the Proposed Action

The NRC staff reviewed the information provided by WEC to support their 10 CFR 20.2002 alternate disposal request and for USEI's specific exemptions from 10 CFR 30.3 and 10 CFR 70.3 in order to dispose of the volumetrically contaminated and surface-contaminated waste. Under the 10 CFR 20.2002 criteria, a licensee may seek NRC authorization to dispose of licensed material using procedures not otherwise authorized by NRC regulations. The licensee's supporting analysis must show that the radiological doses arising from the proposed 10 CFR 20.2002 disposal will be as low as reasonably achievable and within the 10 CFR part 20 dose limits.

As documented in the SER, the NRC staff concluded that the requested alternate disposal is acceptable under 10 CFR 20.2002. Details provided in this request, in combination with past reviews considering similar material from the same site, provide an adequate description of the waste and the proposed manner and conditions of waste disposal. The use of maximum annual volumes and radionuclide concentration limits ensures that potential doses to members of the public, including transportation workers and USEI workers involved in processing and disposing of the waste upon its arrival at USEI, are minimal and within the "few mrem" per year criteria that the NRC established (see NUREG-1757, Volume 1, Revision 2). As USEI is a RCRA Subtitle C hazardous waste landfill permitted by the Idaho Department of Environmental Quality, these disposals are also subject to the RCRA regulations for the site, which includes a site-specific waste acceptance criteria.

NRC staff also considered non-radiological impacts associated with the proposed action. NRC staff concludes that approval of the proposed request would not result in

significant environmental impacts from non-radiological effluents or significantly impact air quality or noise because the volume of materials to be transported for disposal are relatively small, the sites where the proposed action would occur are already disturbed industrial areas which perform these actions on a regular basis, and because the proposed action would not require the development or disturbance of additional land. In addition, approval of the proposed action will not significantly increase the probability or consequences of accidents associated with the transport and disposal of the volumetrically contaminated and surface-contaminated waste.

Considering the small amounts of radioactive material and limited volumes of material, along with the NRC staff's analyses in the SER, the NRC staff finds that the environmental impacts of the proposed action are not significant.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered the no-action alternative in which the NRC staff would deny the disposal request. Denial of the request would require WEC to transport the volumetrically contaminated and surface-contaminated waste to a licensed low-level radioactive processing and disposal facility that is authorized to take waste containing radioactive material in order to satisfy the requirements of the Consent Agreement. This action would ultimately only change the location of the disposal site. All other factors would be of similar significance. Therefore, the no-action alternative was not further considered.

Agencies and Persons Consulted

In accordance with its stated policy, on February 28, 2022, the staff consulted with the South Carolina Department of Health and Environmental Control and the Idaho Department of Environmental Quality regarding the environmental impacts of the proposed action. The State officials concurred with the EA and FONSI.

III. Finding of No Significant Impact

The proposed action consists of NRC approval of (a) WEC's and USEI's alternate disposal requests under 10 CFR 20.2002, (b) WEC and USEI's exemption

request under 10 CFR 30.11(a) and 10 CFR 70.17(a), and the issuance of a conforming license amendment to WEC. Based on this EA, the NRC finds that there are no significant environmental impacts from the proposed action. Therefore, the NRC has determined, pursuant to 10 CFR 51.31, that preparation of an environmental impact statement is not required for the proposed action and a FONSI is appropriate.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through ADAMS, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1197, Docket No. 70-1151), dated May 8, 2020	ML20129J934 (Package)
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility under 10 CFR 20.2002, dated February 25, 2021	ML21061A273
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility Under 10 CFR 20.2002, dated May 11, 2020	ML20280A601
US Ecology Exemption for Alternate Disposal of Specific Waste from the Westinghouse Columbia Fuel Fabrication Facility under 10 CFR 20.2002, 10 CFR 30.11 and 10 CFR 70.17, dated December 9, 2020	ML20304A341
Westinghouse Electric Company, LLC – Amendment 25 to Material License SNM-1107, Exemption for Alternate Disposal of Specific Waste (Enterprise Project Identifier L-2020-LII-0009), dated December 9, 2020	ML20302A083 (Package)
Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Waste (Docket No. 70-1151, Material License SNM-1107), dated February 8, 2021	ML21039A719
Westinghouse Electric Company, LLC – Amendment 26 to Material License SNM-1107, Exemption for Alternate Disposal of Specific Waste (Enterprise Project Identifier L-2021-LLA-0013), dated March 11, 2021	ML21064A225
U.S. Ecology Exemption for Alternate Disposal of Specific Waste from the Westinghouse Columbia Fuel Fabrication	ML21061A277 (Package)

Facility under 10 CFR 20.2002, 10 CFR 30.11 and 10 CFR 70.17, dated March 11, 2021	
Request for Exemption Associated with Disposal of Specified Columbia Fuel Fabrication Facility Waste (Docket No. 70-1151), dated November 5, 2021	ML21309A095
Request for Exemption Associated with Disposal of Specified Columbia Fuel Fabrication Facility Waste (Docket No. 70-1151), correction dated December 1, 2021	ML21336A461
Safety Evaluation Report for Request or Alternate Disposal Approval and Exemptions from Disposal of Columbia Fuel Fabrication Facility Waste to the US Ecology Idaho Facility, dated March 4, 2022	ML22054A045 (Package)
Request for Exemptions Associated with Disposal and Transportation of Specified Columbia Fuel Fabrication Waste dated June 1, 2021	ML21153A001
Letter: Westinghouse Electric Company, LLC – Amendment 28 to Material License Snn-1107, Exemption for Alternate Disposal of Specific Waste (Enterprise Project Identifier L-2021-LLA-0101) dated October 12, 2021	ML21214A093 (Package)
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility under 10 CFR 20.2002, dated November 5, 2021	ML21351A038
Letter from the Idaho Department of Environmental Quality entitled “Review of the Draft Environmental Assessment related to an alternative disposal request from Westinghouse Columbia Fuel Fabrication Facility (CFFF) for disposal of CaF ₂ Sludge,” dated March 3, 2022.	ML22062B349

Email from Ken Taylor of the South Carolina Department of Health and Environmental Control entitled "Review of Draft Environmental Assessment for Westinghouse Columbia alternative disposal request," dated March 3, 2022	ML22062B355
NUREG-1757, Volume 1, Revision 2. Consolidated Decommissioning Guidance: Decommissioning Process for Materials Licensees	ML063000243

Dated: March 4, 2022.

For the Nuclear Regulatory Commission.

Jacob I. Zimmerman,

Chief,

Fuel Facility Licensing Branch,

Division of Fuel Management,

Office of Nuclear Material Safety and Safeguards.

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